



THE PIANC NEWSLETTER

Permanent International Association of Navigation Congresses

Winter 1996/97

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article on p. 5). My future is a bit unclear, but, if I'm lucky, my path will cross with yours again.

Barbara and I have enjoyed the past four years of association with PIANC, and we thank you for your loyal support and friendship.

*Major General Stanley G. Genega
President, U.S. Section, PIANC*

FAREWELL FROM MAJOR GENERAL STANLEY G. GENEGA



By the time you read this, I will have left my position as the Director of Civil Works, U.S. Army Corps of Engineers, and thus will have relinquished the Presidency of the U.S. Section, PIANC. I am thrilled that Major General Russell L. Fuhrman will succeed me (see

NOTES FROM THE SECRETARY

Several Corps of Engineers personnel changes have occurred since the last issue of the newsletter. When **Major General Russell L. Fuhrman** was named Director of Civil Works in October, he also became the President of the U.S. Section of the Permanent International Association of Navigation Congresses. We welcome him to his new position. To **Major General Stanley G. Genega**, who served as Director of Civil Works and President of the U.S. Section from 1992 until his retirement in 1996, we extend best wishes for the future. At his retirement luncheon in November, the U.S. Section presented General Genega with a bronze medallion embossed with the PIANC logo.

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Among **Major General Genega's** last PIANC responsibilities was the presentation of the keynote address on the opening day of the annual conference of the U. S. Section. This very successful conference, which was attended by over 100 people, was held in October 1996 in Seattle. **Walt Ritchie**, Vice President for the Western Region, and the Port of Seattle served as hosts of the conference. Sessions were held in the newly-completed Bell Harbor International Conference Center on Pier 66.

Walt and the Chairmen of the U.S. Section Technical Committees assembled an outstanding group of moderators and speakers, including five from other PIANC member nations. Luncheon speeches were made by **Mrs. Patricia Davis**, a member of the Port of Seattle Commission who spoke on the first day, and by **The Honorable H. Martin Lancaster**, Assistant Secretary of the Army for Civil Works, who spoke on the second day.

Several related meetings were held in conjunction with the annual conference. In addition to the U.S. National Commission, other meetings held included: The Inland Waterways User Board, the ASCE Port & Harbors/U.S. Section, PIANC Joint Committee on Fenders, PTC I, Working Group 17, *Handling and Treatment of Contaminated Dredged Material From Ports and Waterways*, the ASCE Ports & Harbors Committee, and U.S. Section Committees on Membership, Conferences, Sport and Pleasure Navigation and Deep-Draft Waterways and Ports.

Several changes which affect the membership composition of the U.S. National Commission include a retirement, two reappointments and a new appointment. After serving two consecutive four-year terms from 1989 to 1996, **Dr. Tudor T. Davies**, Director, Office of Sciences and Technology, Environmental Protection Agency, will retire on December 31, 1996. Dr. Davies' contributions to the effectiveness of the U.S. Section were recognized in a letter of appreciation from the Chairman of the U.S. Section. **Mr. John M. Pisani**, Director, Office of Ports and Domestic Shipping, Maritime Administration, and **Dr. Anatoly B. Hochstein**, Director, GW/LSU Ports and Waterways Institute, were both reappointed to serve another four-year term of office.

Commissioner designate, **Mr. Joseph J. Birgeles**, who was elected in 1995 as Vice President representing the Eastern Region, will join the Commission. With his appointment, the Association will have achieved the goal of having three elected Vice Presidents serving on the U.S. National Commission representing the Eastern, Central and Western regions of the country.

And on the international level, **Mr. Harry N. Cook**, President, National Waterways Conference, Inc., has been appointed to the PIANC Executive Committee to fill the unexpired term of International Vice President **Lieutenant General Henry J. Hatch**. LTG Hatch who is Vice President of FLUOR DANIEL, Government Services Operating Company, submitted his letter of resignation to **Mr. Robert De Paepe** in July. Mr. Cook

will represent the United States through mid-May 1997.

Mr. Donald G. Waldon, Vice President for the Central Region, is working on plans for a program sponsored by the U.S. Section, which will be presented at the annual meeting of the Inland Rivers, Ports and Terminals, Inc. (IRPT). The IRPT meeting will be held in New Orleans, Louisiana, from April 9-11, 1997. The PIANC program on the subject of *Emerging Issues Facing Inland Ports* will be held on Thursday the 10th of April.

Dr. Anatoly B. Hochstein, Chairman of the U.S. Section Committee for Papers for the 29th Congress, has completed the list of authors and reviewers for the U.S. National papers. The names of authors and co-authors have been transmitted to the International Secretariat. The list of names will be published in a forthcoming issue of the newsletter. Authors of Individual papers on subjects selected by the authors are reminded that abstracts should be submitted to the General Secretariat in Brussels by January 1, 1998. Authors who may be considering submission of an individual paper and would like to obtain a copy of the *Call for Papers* for the 29th Congress may send their requests to the Office of the U.S. Section, PIANC.

The Chairmen of the four Technical Committees report that each committee now has a mission statement and an expanding membership list. The committees for Environment, Shallow-Draft Waterways and Ports, and Sport and Pleasure Navigation have held meetings. The Chairman of the Deep-Draft Waterways and Ports Committee has

been in contact with the members regarding a future meeting of the group.

On December 2, 1996, I met in Wilmington, North Carolina, with **Mr. Erik Stromberg**, Executive Director, North Carolina State Ports Authority, **Mr. Jack Wilson**, Assistant to the Executive Director, **Ms. Karen Fox**, Director of Public Relations and **Mr. Gary Greene**, Principal of Gary Greene Consulting Engineers, Raleigh, North Carolina, to discuss plans for the 1997 annual conference of the U.S. Section, which will be held in Wilmington, October 28-30, 1997. The Programs and Arrangements Committees are at work. Please make a note of the dates now and look for the first flyer announcing the theme of the conference early in 1997.

Mr. Charles Calhoun, Chairman, U.S. Section, PIANC, Publication Committee has reported that three papers prepared by U.S. authors have been submitted to the PIANC Gustave Willems Award Competition for 1997. The entries are as follows:

Inspection, Design, Rehabilitation, Maintenance, and Operation of the Historic Chicago River Mooring Facilities -- Terence M. Browne, Collins Engineers, Inc., Chicago, IL

Sensitivity of Channel Sedimentation Prediction to Wave-field Characterization -- Jennifer L. Irish, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS

Derrickbarge Nicolet Strike Removal System -- Kevin E. Sprague, U. S. Army Engineer District, Detroit



Mr. Charles F. Connors and Mr. Walter D. Ritchie --
In Seattle



Mr. Joseph J. Birgeles, Captain Bengt W. Tornquist
and Mr. John M. Pisani -- In Seattle



Honorable H. Martin Lancaster presents U.S. Section
Willems Award to Mr. David B. Swanson -- In Seattle

MG FUHRMAN NAMED U.S. ARMY CORPS OF ENGINEERS DIRECTOR OF CIVIL WORKS



The Chief of Staff of the Army has approved Major General Russell L. Fuhrman as the Director of Civil Works for the U.S. Army Corps of Engineers. The reassignment became effective on October 11, 1996.

Prior to his reassignment as the Director of Civil Works, MG Fuhrman served as Commanding General and Division Engineer of the U.S. Army Corps of Engineers' North Pacific Division in Portland, Oregon, since July 1995.

MG Fuhrman will oversee the Corps' civil works activities, which have an annual budget of \$3.5 billion and include projects to provide navigation, flood damage reduction, and environmental restoration to the nation. He will also oversee the Corps' emergency

response mission, the regulatory mission in the nation's waterways and wetlands, and many engineering and construction activities which the Corps performs for other Federal agencies.

Born in Shawano, Wisconsin, MG Fuhrman graduated from the U.S. Military Academy at West Point and holds a master's degree in chemical engineering from Pennsylvania State University. He is also a graduate of the U.S. Army Command and General Staff College and the U.S. Army War College.

Prior assignments include Deputy Chief of Staff, Engineer at Headquarters, U.S. Army Europe at Heidelberg, Germany, and Commander of the Corps' North Central Division in Chicago, Illinois. He has also held other command and staff positions with engineer units both in the U.S. and aboard.

His military decorations include four Legion of Merit Medals, three Bronze Star Medals, three Meritorious Service Medals, two Army Commendation Medals, the National Defense Service Medal, the Vietnam Service Medal and numerous others.

A registered professional engineer in the State of Virginia, MG Fuhrman and his wife Marjorie have four children.

ASCE PORTS & HARBORS/U.S. SECTION, PIANC JOINT COMMITTEE MEETS

U.S. Section Undertakes Joint Study of Technical Subject for First Time

The first meeting of the ASCE Ports & Harbors/U.S. Section, PIANC Joint Committee on Fenders met on October 8, 1996, in Seattle. The meeting initiated a new undertaking for the U.S. Section in which it is joining another organization in the study of a technical problem that is of common interest to both organizations.

The Co-Chairmen of the committee, Tom McCollough (ASCE) and Mark Faeth (PIANC) have reported on the deliberations of the group and assignments to be accomplished prior to the next meeting. The Joint Committee will serve as a sub-committee for Mr. Faeth, who is the U.S. Section, PIANC Representative to International Working Group Number 33 which is revising the 1984 *Report of the International Commission for Improving the Design of Fender Systems*.

The Joint Committee revised its purpose to read as follows: *To develop a standard test procedure to determine the performance of marine fender elements*. The committee report will specify a standard test procedure that can be used by an engineer as a reference within a technical specification. The objective will be to require all fender manufacturers to test and rate the performance of their fender products in accordance with the standardized test procedures, hence making cost the main

variable when comparing similar types of fender elements. It was noted that the United States is one of the only major countries that does not have a design manual related to fender systems.

With the cooperation of the American Association of Port Authorities, the Joint Committee plans to send a questionnaire to port authorities relating to the use and performance of various fender elements as input to the international working group. The draft of the standard test procedures should be ready for discussion in October 1997 at the U.S. Section conference in Wilmington, North Carolina. A draft of the final paper will be discussed by the Joint Committee in May 1998 at PORTS '98. The next meeting of the Joint Committee will be held May 19, 1997, (the date is to be confirmed) at the Virginia Port Authority in Norfolk.

Additional information may be obtained from Mark Faeth, Han-Padron Associates (212) 736-5466 or Tom McCollough, CH2MHILL (206) 453-9000.

PIANC MATERIALS USED IN CLASSROOM

At Texas A&M University-Galveston (TAMUG), Texas, students in the Maritime Administration (MARA) Program are benefiting from material found in PIANC publications. Designed to meet the challenges of the future, the MARA Program's curriculum prepares students for careers in the maritime industries. The study of international trade and finance, port

operations, administration and economics, maritime law, inland waterways, and brokerage and chartering make this business degree particularly valuable for today's maritime industries.

According to COL. (R) John P. Basilotto, director of the Texas Transportation Institute's Center for Ports and Waterways and adjunct lecturer, the most popular item among students in his Inland Waterways course is the U.S. Section, PIANC's major waterways and ports map. This map reinforces the point that the U.S. waterway is truly a system and a very important component of our country's economic engine. Other publications popular with students include *Beneficial Uses of Dredged Material - A practical Guide* and *Standardization of Ships and Inland Waterways for River/Sea Navigation*.

Basilotto, who also teaches Management of Organizations, uses an article from Bulletin 1995, #86--*Planning for Quality: A Course of Action for the Development of a Container Terminal* by A. Monfort Mulinas as a platform discussion concerning total quality management and strategic planning in maritime activities. Basilotto notes that most management text books do not offer case examples of maritime management practices and PIANC publications help fill this void.

Students at TAMUG have expressed an interest in forming a student chapter and receiving PIANC publications. Bastillo strongly suggests that PIANC embrace all aspects of navigation and continue to include articles and publications that address the full range of navigation issues.

For additional information, please contact John Basilotto, telephone 409-740-4883, fax 409-740-4787.

STUDY DEMONSTRATES HOW RIVER INFRASTRUCTURE ACTS AS ECONOMIC GENERATOR

Last summer, the Port of Pittsburgh in conjunction with PennPORTS, Commonwealth of Pennsylvania, released a study which evaluates the impact of western Pennsylvania's river system on the area's economy. The study was prepared by Martin Associates of Lancaster, Pennsylvania, and its findings emphasize the role of the rivers as economic generators.

Here are some of the study highlights:

1. The Port of Pittsburgh generates \$5.1 billion in economic activity. The total value of economic activity to the area's economy is measured by:

- Revenue of firms providing river services.
- Purchases of firms dependent on the river.
- Personal earnings of those directly employed by the river.
- State and local taxes generated.
- The spending of direct income.

2. The Port of Pittsburgh generates 120,000 jobs--direct and induced and indirect. Direct jobs are with industrial firms dependent on the river system and firms providing support services to the river system. Induced jobs are generated by the purchases of those directly employed by the river. Indirect jobs

are generated by the purchases of firms directly dependent on the river.

3. The Port of Pittsburgh creates family wage jobs. Personal earnings have a high impact on economic activity because the average salary for direct jobs is 45 percent higher than the average salary for non-river related jobs in the 10-county district. Those with jobs directly tied to the river can enjoy a higher standard of living.

The study underscores the importance rivers play in economic growth and development in the region. Without the low-cost transportation provided by the river system, it is unlikely that the area industry would have initially located here. Recognizing the importance of the river system in retaining these industries, as well as attracting new ones, and improving the rivers' efficiency for transportation are the key to the future growth and economic vitality of the region.

For more information, please contact R. Barry Palmer, (412) 392-4500.

PCDC HOLDS INTERNATIONAL CONFERENCE IN POLAND

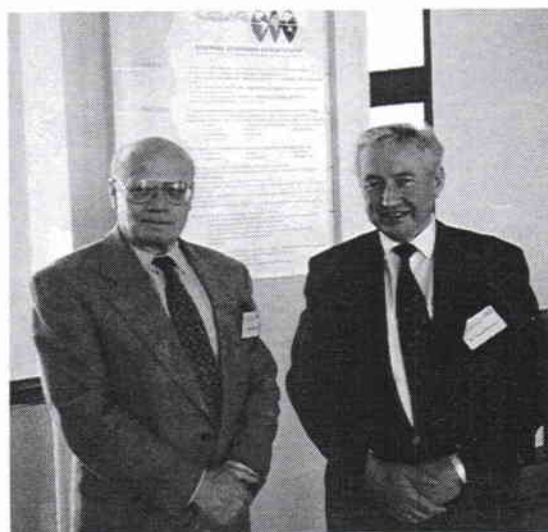
by Anatoly B. Hochstein

The International Conference on Inland and Maritime Navigation and Coastal Problems of East European Countries was held in Gdansk, Poland, on September 1-5, 1996.

The Conference was organized by the PCDC (Permanent Committee on

Development and Cooperation) of PIANC, later joined by The Central Dredging Association. The co-sponsors included a variety of major Polish and worldwide maritime related educational, public and private organizations, including the U.S. Section of PIANC.

The Chairman of the organized committee was Professor Boleslaw Mazurkiewicz of the Technical University of Gdansk and the Polish representative to the PCDC. The conference attracted about 150 representatives from Poland, Estonia, Latvia, Russia, Ukraine, Sweden, Germany, the Netherlands, Germany, Belgium and other Western and Eastern European countries.



Dr. Anatoly Hochstein and Dr. Boleslaw Mazurkiewicz -- In Gdansk

Our section was well represented at the conference. The U.S. Section provided a grant for \$1,800 to cover some of the expenses of delegates from NIS (Newly Independent States of the former Soviet

Union) countries. Dr. Anatoly Hochstein, U.S. Representative to the PCDC and U.S. Commissioner, was a keynote speaker at the opening session. Dr. Adam Prokopowicz of the LSU National Ports and Waterways Institute and Dr. Anatoly Hochstein also presented a paper on "Shipping of Perishable Cargos in the Baltics."



(L to R) Dr. Adam Prokopowicz, Dr. B. Mazurkiewicz, and Dr. Anatoly Hochstein.

The conference program addressed a wide range of topics from port and shipping strategies to port privatization, coastal problems, and the environmental aspects of dredging.

The maritime sector in Eastern Europe is in a difficult process of restructuring. While in the last two decades the international maritime sector experienced significant changes, many of these did not significantly impact port and shipping activity in the region, given the region's limited participation in international trade until the 1990s, when

countries of Eastern Europe moved to a free market economy. As a result, the region's national ports must address a number of issues in response to worldwide trends in containerization, privatization, institutional restructuring and introduction of more flexible and efficient port administration and management.

The objective of on-going restructuring of the maritime sector is to provide ports and former public shipping lines with sufficient autonomy and the managerial and financial ability to meet current and future user needs.

The breakup of the Soviet Union had a profound impact on maritime markets and relations between national ports in the region. Russia lost about half of its port capacities to the currently independent states of Estonia, Latvia, Lithuania, and Ukraine. Countries of Central Asia lost any access to international waters, except through Russian inland waterways.

In his keynote address, Dr. Hochstein touched upon the basic problems ports and shipping lines face in the formation of the regional maritime system, including:

- Strategic directions in the port development and investment programs.
- Competitive situation between Russia and other Baltic ports.
- Role of inland waterways.
- Principles of port privatization.

Dr. Hochstein criticized many existing large-scale port investment programs as being unrealistic and unnecessary, and at the same

time, diverting industry attention from actions which are needed. About 85 percent of the Baltic ports' cargo is direct to/from Russia.

Currently, Russian ports and their users experience numerous problems. Most of these problems are the result of shortcomings in the privatization process when government operated ports were substituted by private monopolies. As soon as these mistakes are corrected, real competition will take hold, and cargo handling productivity will come to a reasonable level and the capacity of Russian ports will be sufficient.

Therefore, it is most risky for the Baltic ports to undertake large investment programs, counting on almost exclusively Russian cargo. Instead, the concentration should be on low-cost expansion and improvements in the productivity and quality of services.

An example of specific improvements was presented by Dr. Prokopowicz. The import of chilled and frozen cargo (fruits, meats, and chicken mostly from the U.S.) is a fast growing activity. At the same time, most of the ports in the region, including the main Port of St. Petersburg, do not have any cold storage facility. A feasibility study conducted by Stevedoring Services of America (SSA) and the LSU National Ports and Waterways Institute, demonstrated that construction of specialized refrigerated terminal in the St. Petersburg port can be a highly profitable venture. Currently, the port is looking for investors of such a facility.

One of the most distinct features of the regional shipping is wide deployment of

river/ocean vessels. Russia alone possesses nearly 1,000 of such vessels with about 3,000 tons capacity each. These vessels have been extremely helpful in providing feeder services between the major hubs, such as Rotterdam, to smaller Baltic ports. The problem is that in performing this function the fleet abandoned its purpose of direct connection with inland ports. In Dr. Hochstein's opinion, as trade develops feeder services will be provided by larger vessels and the river/ocean fleet will have to return to its original role. This will increase the role of the inland waterways.

Among other topics of the debate were user's charges, the financing of dredging work and the opening of national inland waterways to foreign flag vessels.

Overall, the conference once again demonstrated that the regional maritime system is going through a most significant transformation. Results of this transformation directly impact the U.S.'s ability to trade with countries of the region. More than any other country of the western world, the U.S. depends on efficient ocean and port services for successful economic relations with Russia and other Eastern European nations.

PIANC MEMBER RECEIVES O'BRIEN AWARD

Mr. Richard B. Dornhelm, U.S. Section, PIANC member and co-U.S. representative to PIANC's Sport and Pleasure Navigation Commission, was presented the Morrough P. O'Brien Award of the American Shore and Beach Preservation Association on 14 October

1996 at the Association's annual meeting in Chicago, Illinois.

Mr. Dornhelm was cited for his outstanding service to the Association, particularly during his years as Treasurer. Assuming the Treasurer's job in 1986, he made the transition for the Association's financial activities from the east to the west coast, and materially enhanced its financial services and capabilities during his eight-year tenure until the end of 1994. His efforts have significantly aided the Association in its work, especially in putting it into the modern computer age.

Previous U.S. Section, PIANC recipients of the O'Brien Award have been Mr. Billy L. Edge, Mr. Orville T. Magoon, and Dr. Robert L. Wiegel.

INTERNATIONAL COUNCIL OF MARINE INDUSTRY ASSOCIATIONS

If marinas and small craft harbors are your business and you would like to improve your business and enhance your professional reputation... Sign up now for ICOMIA's 3rd International Marina Conference (IMC '99)! This is where you'll meet and share your knowledge with other boating facilities operators, consultants, risk managers and developers from all over the world

From February 15-17, 1999, the International Council of Marine Industry Associations will continue its highly acclaimed conference series at the Radisson Bahia Mar Beach Resort, Fort Lauderdale, in

sunny Florida. Two full days will be devoted to discussing success stories in boating facilities today and the trends and challenges influencing future development. The third day will include an eye-opening field trip to the wide variety of marinas and boatyards in South Florida to learn how they operate for success in a highly-competitive market.

The conference is being held in cooperation with the National Marine Manufacturers Association, the Marine Industry Association of South Florida, the Marine Operators Association of America, the International Marine Institute, and the other prominent recreational boating interests in the United States. It is timed to coincide with the opening week of NMMA's Miami International Boat Show, just one-half hour away, so that conference registrants may attend the marina management seminars conducted by the International Marina Institute at the Boat Show later the same week.

Proposals for program papers are now being accepted. Post-conference evaluation of ICOMIA's previous marina conferences, in Amsterdam in 1993, and Genoa in 1996, show that the audience is keen to learn more about marina risk management, venture capitalization, real estate valuation, economic impact assessments, relationships to nautical tourism, trends in boat design influencing future facilities and services, recommended best management practices for clean waters, public/private partnerships, problems with leasing government-owned bottomlands, marina software, networking and use of the Internet.

If you have something new and interesting to say about any one or more of the above subjects, please send an abstract and a biographical sketch to the IMC '99 Program Review Committee, c/o Ron Stone, NMMA Boating Facilities Development Department, 3050 K Street, Suite 145, Washington D.C. 20007 (USA). For conference details, use the same address, or contact Mr. Stone at (202) 944-4985 or FAX: (202) 944-4988, or e-mail: sgwell@aol.com.

USERS GROUP TO RUN SAINT LAWRENCE SEAWAY (CANADA)

The government of Canada has announced the signing of a letter of intent with a Shipper/Carrier Users Group to establish a not-for-profit corporation to operate the Saint Lawrence Seaway System. On June 10, 1996, the Minister of Transport, Canada, Mr. David Anderson, introduced the Canada Marine Act in the House of Commons. Among other things, this legislation will permit the Minister of Transport to pursue commercialization of the operations of the Seaway System by entering into agreements with Seaway users or other private-sector groups. The Canadian government and the users groups will now begin the detailed work required to establish a not-for-profit corporation and prepare the legal agreement necessary to transfer Seaway operations. The Canadian Parliament will consider legislation in 1997.

PIANC PARTICIPATES IN OAS PORT AND WATERWAYS TRAINING

Several U.S. Section Commissioners have been actively involved in the port and inland waterway training activities of the Organization of American States (OAS).

Commissioner John Pisani is serving as the principal U.S. delegate to the OAS Inter-American Port and Harbor Conferences held every three years. These inter-governmental conferences provide the hemispheric forum for the OAS member countries to address major issues in port administration, operations, training, policy, labor, inland water transport and privatization.

At the OAS Ninth Conference held in Asuncion, Paraguay, from September 23-27, 1996, two major agreements, in which the U.S. played a major role, were approved. The first provides a new mechanism for mutual technical assistance among ports in the hemisphere. The second establishes guidelines for an Inter-American port development policy consistent with the regional transportation priorities identified by the U.S. Secretary of Transportation Pena and his counterparts at their hemispheric summit in Santiago, Chile, last April.

Also at the Ninth Conference, Commissioner Anatoly Hochstein took part in the discussion on current port training needs and available programs in the hemisphere, as part of the work of the OAS Port Training Committee. Commissioner Pisani is chairman of this committee, which has organized and

carried out eight courses for the OAS in the last two years involving 260 Latin American and Caribbean trainees.

These events ranged from one to three weeks and took place throughout the hemisphere, including on-the-job training at several U.S. ports under a joint OAS-AAPA program, titled "Puerto Amigos." Training topics included port management, security, privatization, intermodal transportation, strategic planning, labor reform, control of drugs, chemicals and dangerous goods, marketing, finance and inland waterway transportation.

La Plata, Argentina, was the site of the training course in Inland Water Transport, held June 12-14, 1996. Commissioner Charles Lehman, along with Dr. Kevin Horn and Mr. Charles Adams of the National Ports and Waterways Institute at the Louisiana State University and several South American waterway representatives, discussed the development of the Hidrovia Parana-Paraguay system.

Mr. Lehman addressed the American Commercial Barge Line's involvement in South America, both on the Orinoco River in Venezuela and on the Parana-Paraguay River. He also addressed barging operations on various other rivers of the world, barge line organizations and operations, and safety and environmental considerations in utilizing barging transport.

Dr. Horn talked about vessel costs, typical rates, intermodal competition, and how to model, analyze and forecast public and private

business opportunities, while Mr. Adams discussed dredging measurements of environmental impacts.

For more information, please contact John Pisani at 202-366-5759.

HYDRAULICS LABORATORY AND COASTAL ENGINEERING RESEARCH CENTER MERGE

The Hydraulics Laboratory and the Coastal Engineering Research Center (CERC) of the Corps' Waterways Experiment Station recently merged to form the Coastal and Hydraulics Laboratory (CHL). CHL, with over 300 technical and administrative personnel, is now the largest water resources research and development organization in the world. The mission areas of the two merged organizations have not changed and were melded within the new organization. Since CERC was established by Public Law, it will remain an entity within the new laboratory. Dr. James R. Houston, the former Director of CERC, is the Director of CHL.

-- December 96, Vicksburg, MS

ABOUT THE U.S. WATERWAY DATA CD-ROM

The U.S. Waterway CD-Data ROM is a compendium of data related to the navigable waters in the United States, including inland waterways, off-shore waters, the Great Lakes, and the Saint Lawrence Seaway on commerce, facilities, locks, dredging, imports and exports, and accidents are included along with the geographic waterway network. The data

including the U.S. Army Corps of Engineers Navigation Data Center, the U.S. Bureau of the Census, the U.S. Coast Guard, Oak Ridge National Laboratory, and Vanderbilt University. The Waterway Data CD-ROM is the result of a coordinated effort between the Bureau of Transportation Statistics and its allied agencies to make waterway data more widely available and easily accessible.

The waterway Data CD-ROM contains primarily data. To take full advantage of the Waterway CD-ROM, a Geographic Information System (GIS) is required. Non-GIS files are presented in a variety of additional formats, including ASCII, DBASE, ASCII comma-delimited, and BMP file formats. Several files on the CD-ROM contain common fields that must be linked using a database, spreadsheet, or statistical application.

For technical assistance using this CD-ROM or accessing the on-disc databases, please contact the Bureau of Transportation Statistics at (202) 366-DATA and refer to the U.S. Waterway Data CD-ROM or e-mail: info@bts.gov.

SOUTH LOUISIANA PORT AUTHORITY BRINGS IT ALL TOGETHER

Along with the ports of Corpus Christi, Texas, and Mobile, Alabama, the South Louisiana Port Authority has put together a textbook case of plant location logistics. The port authority is reaping cargo benefits from five new iron ore refining plants along the Gulf Coast, which were built there to take

advantage of cheap energy sources in the Gulf of Mexico and the ability of these ports to handle the largest bulk vessels.

The ports bring together competitively-priced natural gas of the Gulf Coast region (deregulated since 1986), low-cost reliable labor, and quality iron ore from Brazil--everything fits.

The South Louisiana Port Authority is the third largest cargo port in the world (and one of last year's sponsors of the General Assembly of PIANC in New Orleans). As the largest port authority in the United States, it handles about half of all U.S. grain exports.

According to Assistant Port Director, Glenda Jeansonne, as reported in **Traffic World** by Terry Brennan in the July 22, 1996 issue, the Port of South Louisiana expects to capture three of the new "direct reduction iron" refineries. "We're in a good position to attract these plants because we're right on the Mississippi and they can barge the ore right up to the Midwestern mini-mills."

Each project will cost about \$50 million for dock facilities and another \$200 million in plant equipment. The facility is expected to require 4.5 million tons of Brazilian ore a year and dispatch about 3 million tons of refined ore by barge or rail shipments, according to the article in **Traffic World**.

SEISMIC EVALUATION AND DESIGN FOR OLMSTED LOCK STRUCTURES

*by Jeff Bayers, U.S. Engineer, District,
Louisville*

The Olmsted Lock and Dam Project on the Ohio River, now under construction, will replace existing Lock and Dam 52 and 53. It will provide a navigation pool back to the Smithland Lock and Dam (River Mile 918.5) and locking facilities to pass traffic across the dam. Once the new project is completed, Lock and Dam 52 and 53 will be dismantled to allow safe navigation through those project areas.



The proposed site at Olmsted is situated on the northeastern boundary of the New Madrid Seismic Zone, adjacent to the southern limits of the Wabash Valley Seismic Zone. Both seismic zones have the capability of producing major earthquakes, and the Olmsted site has experienced major earthquakes in the past. As a result, seismic studies were conducted to:

- (1) Select or develop time histories of input rock motions for the Operating Basis Earthquake (OBE) and the Maximum Credible Earthquake (MCE).

- (2) Conduct a series of dynamic analyses of the soil-pile-lock structure system

representing selected monoliths of the lock structure. From these analyses the pile foundation forces and forces in the lock structure would be derived and designed for.

Based on recently developed U.S. Army Corps of Engineers guidance, and just before beginning construction of the pile foundation, a probability assessment of the earthquake hazard was accomplished to develop a Maximum Design Earthquake (MDE) for the Dam at Olmsted. Based on this study and some additional analyses, the final pile layout for the lock structures was optimized for selected monoliths where changes would not interfere with lock construction schedules.

Time dependent horizontal and vertical rock motions were developed to represent the earthquakes for analysis and design purposes. In addition to natural time histories, synthetic time history records (both horizontal and

vertical components) were developed for use as the rock motions.

In this study, dynamic soil-structure interaction (SSI) analyses were performed using the computer code FLUSH. The soil-pile-lock system was approximated by plane-strain models; the piles were modeled by equivalent plane-strain beam elements. A total of four basic monoliths were analyzed in this study including the typical chamber monolith, the bridge pier monolith, the lower miter gate monolith, and the culvert valve pit monolith.

Based on the results from the SSI analyses, dynamic pile forces and moments and structural section forces and moments were computed and then combined with the forces and moments under static loads. In addition, relative displacements between selected locations on the lock structure and between the pile heads and pile tips were computed. Computer aided post-processing and color graphics allowed quick identification of "hot spots" in the structure and foundation elements.

Use of these tools and methods has given us a more refined analysis and helped us to achieve a better understanding of the structural performance. The designers could confidently increase pile spacings and cut back on reinforcement in the design of the locks structures, leading to substantial cost savings on the project. Pile spacings were increased by 14 percent in most monoliths. Main reinforcing steel was reduced from initial estimates by nearly 40 percent in some sections.

The new lock and dam will consist of two 110-foot wide by 1,200-foot long locks adjacent to the Illinois bank, a tainter gate dam for pool elevation control, a wicket gate navigable pass dam, and a fixed weir extending to the Kentucky bank.

NEW MEMBERS

CORPORATE

James D. Pugh
Black & Veatch
Shiv Batra, P.E.
INCA Engineers, Inc.

INDIVIDUALS

Terence M. Browne
Thomas Collins
Frank McDonough
Simos E. Georgandis
Paul H. Gilbert
Philip R. Grissinger
John R. Harrald
Garry Horvitz, P.E.
Mark Korkowski
Ram K. Mohan
Vladimir Shepsis
James W. Waller
Thomas H. Wakeman III
Roberta E. Weisbrod

STUDENT

Rebecca Robinson

EDITING SCHEDULE FOR 1997 - INTERNATIONAL BULLETINS

1st Issue - Bulletin No. 93 (January 1997)

Articles on the SPN theme "Economics impact of the introduction of pleasure navigation" and presentations from the International Debate in Durban (1996).

2nd Issue - Bulletin No. 94 (March 1997)

Issue essentially devoted to articles from Italy, host country of the 1997 PIC meeting.

3rd Issue - Bulletin No. 95 (June 1997)

Articles on a PTC I theme.

4th Issue - Bulletin No. 96 (September 1997)

Articles on a PTC II theme.

UPCOMING SUPPLEMENTS

The final reports of Working Groups of both PTC I and II, the SPN and the PEC are published as soon as is materially possible as supplements to the Bulletin.

A special report of the SPN, titled "Review of Selected Standards for Floating Dock Designs" will be published as a supplement to Bulletin No. 93, as well as the report of PTC II-WG 7 of SPN, "Guidance on Marine Sanitation Pumpouts."

The next report to be published will be the report of PTC II-WG-22, "Guidelines for the Design of Armored Slopes under Open Piled Quaywalls."

PUBLICATIONS

The **Navigation Data Center User's Guide** (NDC Report 96-3, June 1996) is designed to acquaint the reader with the types of data available from the Navigation Data Center. It explains the various ways to access these data and provides some background on why these data are collected. In addition, it shows how the data apply to the Corps of Engineers' decision-making process. To obtain a copy of this guide, please write to the U.S. Army Corps of Engineers, Water Resources Support Center, Navigation Data Center, 7701 Telegraph Road, Casey Bldg., Alexandria, VA 22315-3868.

TRAINING COURSES

The 30th Annual Dredging Seminar will be held on June 30, 1997, in Charleton, South Carolina. The seminar will be conducted in conjunction with the Western Dredging Association's Annual Meeting (WEDA XVIII) from June 28-July 3, 1997. For more information, please contact Mr. Ronald E. Wills, Hartman Associates, 810 3rd Avenue, Suite 408, Seattle, WA 98104; TEL: (206) 382-0388.

The International Program for Port Planning and Management (IPPPM) 13th annual program will be held at the World Trade Center in New Orleans, Louisiana, from March 3-14, 1997. IPPPM is an intensive, two-week management training program for foreign and domestic maritime industry officials in all facets of port planning and management. The Board of Commissioners

of the Port of New Orleans, the World Trade Center of New Orleans, Louisiana State University's National Ports and Waterways Institute, and the University of New Orleans sponsor IPPPM. Topics typically covered include trends in world economics, labor relations, port planning and development, and ship types, sizes and characteristics. For more information, please contact Ms. Paulette Simon, IPPPM Coordinator; (504) 280-6519; FAX: (504) 280-6272.

CALL FOR PAPERS

The **Eastern Dredging Association** will hold the 2nd Asian and Australasian Ports and Harbours Conference in Ho Chi Minh City, Vietnam from 16-18 April 1997. Topics to be included are dredging operations in port and harbour areas, handling of dredged material, studies and surveys, environmental considerations, and design and maintenance of marine structures. Interested authors must submit three copies of abstracts, maximum 300 words, by 6 January 1997 to Mr. J. F. Dobson, Secretary EADA Technical Paper Committee, GPO Box 1818, Brisbane, Q 4001, Australia (tel. +61 3258 4746, FAX: +61 7 3258 4704).

The **International Association on Water Quality (IAWQ)** will hold its second conference in Rotterdam, The Netherlands, on 7-11 September 1997. This conference will cover contaminated aquatic sediments and the solutions to the problems they pose to the environment. To submit an abstract, write to: IAWQ Conference Secretariat, P.O. Box 1558, 6501 BN Nijmegen, The Netherlands. Suggested topics include but are not limited to

national policies and strategies, site investigation and characterization, risks and quality criteria, ecological effects, disposal, beneficial uses, and treatment technologies for dredged sludge.

Ports '98, the eighth in a series of specialty conferences on ports, will be held on March 8-11, 1998, in Long Beach, California. Abstracts for technical papers are being solicited now. All submissions should address technology issues, case studies or practical experiences. Suggested topics include port access, terminals, environmental impacts, transportation planning, and project delivery. (The technical program committee will solicit papers from authors for conference sessions.) Abstracts, not to exceed 500 words, must include the major points to be covered in the paper and describe the paper's significance to the conference. Submit abstracts by April 15, 1997 to: Mr. Michael A. Kraman, Moffatt & Nichol Engineers, 250 W. Wardlow Road, P.O. Box 7707, Long Beach, CA 90807; TEL: (310) 426-9551; FAX: (310) 424-7489.

ACTIVITIES

Inside PIANC

10 April 1997	Inland Rivers, Ports & Terminals, Inc. (IRPT) (U.S. Section - Program) P.O.C. Mary Jane Robertson	New Orleans, LA *703-428-6286
28-30 Oct 1997	U.S. Section, PIANC Annual Conference P.O.C. Mary Jane Robertson	Wilmington, NC 703-428-6286
8-11 Mar 1998	Ports '98 P.O.C. 800-548-2723	Long Beach, CA
6-11 Sep 1998	29th International Congress PIANC P.O.C. Mary Jane Robertson	The Hague, The Netherlands

Outside PIANC

30-31 Jan 1997	WEDA: International Technical Meeting '97 "Dredging Works in the Regional Development" POC: Ing. Guillermo Macdonel Martinez TEL: (011 525) 536-7401 FAX: (011 525) 639 5360	Mexico City, Mexico
8-9 Mar 1997	Fourth National Marina Research Conference International Marina Institute (Research on recreational boating marinas, their uses, impacts, regulations and trends) TEL: 401-294-9558	Irving, TX
24-27	Mar 1997 California and the World Ocean organized by Coastal Zone Foundation TEL: (707) 987-0114 FAX: (707) 987-9351	San Diego, CA
9-11 April 1997	*Inland Rivers, Ports & Terminals, Inc. Annual Meeting	New Orleans, LA
14-16 Apr 1996	Fourth International Conference on Safety in Port Environment	Bremen, Germany
14-24 Apr 1997	XVth International Hydrographic Conference	Monaco
21-25 Apr 1997	International Symposium on Large-Scale Constructions in Coastal Environments	Norderney, Germany

18-25 Apr 1997	International Boating and Water Safety Summit FAX: (614) 666-3009	San Diego, CA
20-24 May 1997	Society of American Military Engineers - Annual National Conference POCs: COL Keith Smith/Ms. Tracey Knott TEL: (703) 695-2550/(703) 641-4600	Washington, DC
26-28 May 1997	4th International Seminar on Renovations and Improvements to Existing Quay Structures	Gdansk, Poland
22-25 Jun 1997	26th International Conference on Coastal Engineering Tel: +45 76 95 55 FAX: +45 76 25 67	Copenhagen, Denmark
28 Jun-3 Jul 1997	WEDA XVIII Western Dredging Association Annual Meeting and Technical Conference "Dredging: The International Business" POC: Robert E. Randall TEL: (409) 845-4568	Charleston, SC
29 Jun-3 Jul 1997	AWRA (American Water Resources Association) and UCOWR (Universities Council on Water Resources) Annual Symposium "Water Resources, Education, Training, and Practice: Opportunities for the Next Century" AWRA: (703) 904-1225 UCOWR: (618) 536-7571	Keystone Resort, CO
16-18 Jul 1997	Transportation Research Board Summer Meeting	Gulfport, MS
20-26 Jul 1997	Coastal Zone '97 "Charting the Future of Coastal Zone Management"	Boston, MS
7-11 Sep 1997	New Zealand Coastal Society International Multi-Disciplinary Conference "Pacific Coasts and Ports '97"	Christchurch, New Zealand
7-11 Sep 1997	International Conference on Contaminated Sediments	Rotterdam, The Netherlands
17-19 Sep 1997	National Waterways Conference Annual Meeting POC: Harry N. Cook TEL: (202) 296-4415 FAX: (202) 835-3861	Houston, TX